

# LUCIFER FURNACES



Manufacturer of Industrial Heat Treating Furnaces and Ovens

## Series 8300 GT- High Temperature Inert Atmosphere GT Dual Chamber Furnaces

Unique "Space Saver" design offers convenience and economy of two independently controlled chambers in one packaged assembly. The upper chamber (Hardening) is equipped with silicon carbide heating elements and designed for operation with inert protective atmosphere to 2500°F. This chamber is constructed with a continuously welded shell, gasketed door assembly, and inlet and outlet ports for operation with a positive flow of atmosphere. These models are best suited for constant operation to maintain a dry refractory environment in the work area to minimize oxidation on workloads. The elements are mounted above and below the hearth and fire through an eight step voltage regulating transformer with selector switches to provide maximum element life. The lower chamber (Tempering) is complete with coil wound heating elements, stainless steel liner, and fan to recirculate heat for uniform temperature. Available at operating temperatures of 800°F(88), 1200°F(82), 1400°F(84), and 1600°F(86).

Ruggedly constructed and rated for workloads up to 50 lbs. per square foot of hearth area, all models are completely wired, test fired and shipped ready for connection to main power supply.

### Standard Features

- Continuously welded upper chamber sheet metal shell construction. Both chambers designed with same working dimensions.
- Multi-layered energy efficient lightweight firebrick and mineral block insulation for maximum heat storage and minimum heat loss.
- Silicon carbide hearth plate for load support and thermal transfer from floor elements in upper chamber.
- Silicon carbide heating elements mounted above and below hearth for uniform heat in upper chamber.
- Coil wound heating elements in easy-to-replace holders located on side walls of lower chamber.
- Manual vertical lift gasketed upper chamber door and horizontal swing lower chamber door.
- Safety micro-switch shuts off power to elements and fan when door opens.
- Honeywell digital temperature controller with type K thermocouple and magnetic contactor on each chamber.
- Controls and power components mounted in separate free standing NEMA 1 panel.



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### Model Specifications

MODEL	CHAMBER			OVERALL			KW	VOLTAGE	WEIGHT (LBS.)
	H"	W"	L"	H"	W"	L"			
83GT-A6	6	6	6	80	32	39	3.5	230/460/1	875
83GT-A9	6	6	9	80	32	39	4.5	230/460/1	1000
83GT-A12	6	6	12	80	32	42	6.5	230/460/1	1100
83GT-A18	6	6	18	80	32	48	8.75	230/460/1	1225
83GT-B9	9	9	9	90	36	39	8.5	230/460/1	1200
83GT-B12	9	9	12	90	36	42	10.5	230/460/1	1600
83GT-B18	9	9	18	90	36	48	14	230/460/1	2000
83GT-B24	9	9	24	90	36	54	17	230/460/1	2400
83GT-H12	9	12	12	90	40	42	12.5	230/460/1	1700
83GT-H18	9	12	18	90	40	48	17	230/460/1	1900
83GT-H24	9	12	24	90	40	54	21	230/460/3	2300
83GT-H36	9	12	36	90	40	64	28.5	230/460/3	2600
83GT-K12	12	12	12	100	40	42	15.5	230/460/3	1800
83GT-K18	12	12	18	100	40	48	20	230/460/3	2100
83GT-K24	12	12	24	100	40	54	25.5	230/460/3	2500
83GT-K36	12	12	36	100	40	64	35	230/460/3	2900
83GT-M18	12	18	18	100	48	48	27	230/460/3	2300
83GT-M24	12	18	24	100	48	54	33	230/460/3	2800
83GT-M36	12	18	36	100	48	64	43	230/460/3	3300
83GT-M48	12	18	48	100	48	78	52	230/460/3	3900
83GT-O18	18	18	18	112	48	48	35	230/460/3	3200
83GT-O24	18	18	24	112	48	54	41	230/460/3	3600
83GT-O36	18	18	36	112	48	64	53	230/460/3	4200
83GT-O48	18	18	48	112	48	78	64	230/460/3	4800

**Notes:** Quench tanks may be stored below furnaces with chamber heights through 9" high.  
KW and Voltage based on 1200°F lower chambers.

**Options:** Flow meters, regulators, oxygen analyzers, dew point indicators, program controllers, over temperature safety systems, timers, recorders, quench tanks, alternate door arrangements, computer interface, gloves and tongs.